



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,519	11/09/2000	Satoru Nippa	2185-480P	1737
2292	7590	12/13/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			SHOSHO, CALLIE E	
		ART UNIT	PAPER NUMBER	
		1714		

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/708,519	NIPPA, SATORU	
Examiner	Art Unit		
Callie E. Shosho	1714		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 21 September 2006.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-4 is/are pending in the application.
4a) Of the above claim(s) 3 and 4 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1 and 2 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date. ____ .
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/9/00. 5) Notice of Informal Patent Application
6) Other: ____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/21/06 has been entered.

2. It is noted that applicants' IDS filed 11/9/00 has been considered.

Election/Restrictions

3. It is noted that the Restriction requirement set forth in the office action mailed 2/4/02 and applicants' affirmance of their election of Group I, claims 1-2 in the amendment filed 4/15/03 is maintained.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (U.S. 4,491,553).

Yamada et al. disclose a resin composite comprising a resin such as ethylene/vinyl acetate copolymer, polybutadiene, polyisoprene, polystyrene, and chloroprene rubber and filler such as aluminum hydroxide having average particle diameter of 0.01-50 μm (col.3, lines 13-15 and 66-7, col.5, lines 15-19, 21-22, 35, and 42). Given that the average particle diameter is the size of the aluminum hydroxide based on the particle size distribution of the aluminum hydroxide, and not on agglomerated particles, it is clear that this is equivalent to the primary particle diameter as presently claimed.

Using the specification as a dictionary in order to define the Y/X index (see MPEP 2111.01), it is noted that page 5, lines 20-24 and page 6, lines 1-3 define the index as a measure of the degree of dispersion of the aluminum hydroxide in the resin and that the higher the dispersion degree, the smaller the index. Therefore, although there is no explicit disclosure in Yamada et al. that the composite has index Y/X of 0.1 or less as presently claimed, given that Yamada et al. disclose that the dispersion of the filler in the resin is very uniform (col.6, lines 19-21) and in light of the definition of the Y/X index as described above, it is clear that the composite of Yamada et al., which possesses high degree of dispersion, i.e. filler is very uniformly dispersed, would inherently possess index Y/X of 0.1 or less as presently claimed.

In light of the above, it is clear that Yamada et al. anticipates the present claims.

Response to Arguments

6. Applicant's arguments and 1.132 declaration filed 9/21/06 have been fully considered but they are not persuasive.

Specifically, applicant argues, as well as provides 1.132 declaration to support the argument, that contrary to the examiner's position, the non-kneading method of Yamada et al. does not produce resin composite with Y/X index as presently claimed.

However, it is the examiner's position that the declaration is not persuasive for the following reasons.

In the declaration filed 9/21/06, the applicant produces resin composite by mixing aluminum hydroxide powder with PTFE emulsion and then mixing with SBR, zinc oxide, stearic acid, age resistor, wax, vulcanizing accelerator, and sulfur followed by molding. It is shown that the resin composite possesses Y/X index of 0.135.

However, the declaration is not persuasive given that the declaration does not make a proper comparison to the "closest" prior art, namely, Yamada et al.

Specifically, while the declaration produces resin composite by mixing filler, i.e. aluminum hydroxide powder, with PTFE emulsion and the mixing with resin, i.e. SBR (in addition to other ingredients), Yamada et al. (col.3, lines 25-26) teach mixing a resin with a filler in the presence of PTFE. Thus, it appears that in order to determine Y/X index of resin composite of Yamada et al., the filler and the resin must be mixed together in the presence of PTFE, i.e. mixing filler, resin, and PTFE emulsion all together at once, not first mixing filler and PTFE emulsion and then adding resin as now set forth in the 1.132 declaration.

Further, it is noted that the declaration is not commensurate in scope with the scope of Yamada et al. for the following reasons.

Firstly, the declaration utilizes PTFE emulsion having PTFE content of 60%. However, it is noted that Yamada et al. teach the use of PTFE emulsion containing several tens of % up to 60% of PTFE particles. Thus, while the declaration utilizes PTFE emulsion with the highest amount of PTFE disclosed by Yamada et al., there is no comparison with PTFE emulsion containing amount of PTFE at the lower end of the range disclosed by Yamada et al. It is noted that the amount of PTFE present would appear to have an effect on Y/X index of the composite.

Secondly, it is noted that col.3, lines 46-57 of Yamada et al. disclose that the resin composite comprises 20-80 parts resin, 20-80 parts filler, and 0.1-5% PTFE emulsion. However, from the example in the declaration, it is seen that the resin composite, based on the amount of filler and resin, contains 13 parts aluminum hydroxide and 87 parts resin which falls outside the scope of the amounts disclosed by Yamada et al. Thus, it appears that the example of the declaration is not commensurate in scope with the scope of Yamada et al. given that the resin composite utilizes amounts of filler and resin outside the scope of Yamada et al.

Further, the declaration is not persuasive given that there does not appear to be proper comparison between resin composite of Yamada et al. and that of the present invention. That is, in the examples of the present specification after mixing filler and resin, vulcanization accelerator, sulfur, zinc oxide, stearic acid, age resistor, and wax are added to the mixture of the filler and resin while in the declaration zinc oxide, stearic acid, age resistor, and wax are added separately from the vulcanization accelerator and sulfur. Additionally, the resin composite in the declaration is formed from molding for 20 minutes by using 160 °C hot press while in the

examples of the present specification, the resin composite is formed from molding for 20 minutes by using 170 $^{\circ}$ C hot press. It is not clear what, if any, influence these differences would have on the Y/X of the resin composite. Clarification is requested.

Additionally, there is no disclosure regarding the significance of the results found in the declaration. It is noted that the resin composite of the example in the declaration possesses Y/X index of 0.135 while the present claims require resin composite with Y/X index of 0.1 or less. Thus, it is not clear how significant the difference is between the Y/X index for the presently claimed resin composite and that disclosed by Yamada et al. As set forth in MPEP 716.02(b), the burden is on applicant to establish that the results are unexpected and significant. The evidence relied upon should establish “that the differences in results are in fact unexpected and unobvious and of both statistical and practical significance”, *Ex parte Gelles*, 22 USPQ2d 1318, 1319 (Bd. Pat. App. & Inter. 1992).

In light of the above, it is the examiner’s position that the 1.132 declaration filed 9/21/06 is not successful in overcoming the “closest” prior art of record, namely, Yamada et al.

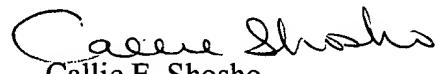
7. The prior art made of record and not relied upon is considered pertinent to applicant’s disclosure.

Nippa et al. (U.S. 6,130,283) disclose rubber composition comprising aluminum hydroxide with primary particle diameter of 10-100 nm and styrene-butadiene rubber, however, there is no disclosure or suggestion regarding Y/X index as presently claimed.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
12/11/06